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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,101	02/03/2006	Masaaki Isozu	279077US6PCT	4638
22850 7590 11/18/2010 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER PHAM, TIMOTHY X				
ART UNIT 2617		PAPER NUMBER		
NOTIFICATION DATE 11/18/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/567,101

**Applicant(s)**

ISOZU, MASAAKI

**Examiner**

TIMOTHY PHAM

**Art Unit**

2617

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 27-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 7/15/2010/7/30/2010

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/30/2010 has been entered.

***Election/Restrictions***

2. Applicant's election without traverse to choose to prosecute the claims of Group II, corresponding to claims 27-43 in the reply filed on August 11, 2010 is acknowledged. This application contains claims 1-26 drawn to an invention nonelected. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

The inventions are distinct, each from the other because of the following reasons:

Invention I (Claims 1-26) drawn to a system, a terminal device, a control method, a non-transitory computer readable storage medium, comprising steps to creating a plurality of the routes to the first communication terminal and storing and managing the plurality of routes. The newly added limitation "upon reception of the route request message and determination that the route request message was not previously received, broadcasting the route request message to each terminal included in the plurality of terminals to duplicatively receive the route request message" in claims 1, 3, 10-14, 19, 22, 25-26 alter the scope of the previously examined claims.

Invention II (Claims 27-43), drawn to a system, a terminal device, a control method, a non-transitory computer readable storage medium, comprising steps of at the second terminal device, detecting a possible disconnection state in terms of a disconnection symptom for communication on the routes and notifying the possible disconnection state to the first terminal device, then the first terminal device generates a new request route message other than the route matching the possible disconnection state notified from the second communication terminal and originating the message.

The invention of group I as claimed recites of establishing one of the plurality of routes as a communication route and communicating with the first communication terminal via the communication route wherein switches the communication route to any of the plurality of routes depending on needs and in particular, the second terminal and/or the third terminal device determines that the route request message from the first terminal device was not previously received whereas invention of group II as claimed recites a method for detecting a possible disconnection state in terms of a disconnection symptom for communication on a first route as an upstream side for the message and notifying the possible disconnection state detected by the first step to the first communication terminal. The two inventions have mutually exclusive features as stated, can have material different design, mode of operation, function, or effect, and do not overlap in scope due to the mutually exclusive features. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

***Response to Arguments***

3. Applicant's arguments with respect to claims 27-43 have been considered but are moot in view of the new ground(s) of rejection.

***Information Disclosure Statement***

4. The information disclosure statements (IDS) submitted on 7/15/2010 and 7/30/2010 are being considered by the examiner.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 27-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Billhartz (US 2004/0203820).

Regarding claims 27, 33, 36-37, and 41, Billhartz discloses a communication system, a communication terminal device, and a communication method, comprising:

a plurality of communication terminals (Fig. 1; paragraph [0033], e.g., The network 20 includes a plurality of mobile nodes 30 including the source node 1 and the destination node 4 with intermediate nodes 2, 3 and 5 therebetween), and based on a message originated from a first communication terminal to a third communication terminal via a second communication

terminal (paragraphs [0033]-[0034], e.g., forwards the QoS route request to other intermediate nodes 2 and 5, and temporarily reserves node resources for that QoS route request (block 108). Intermediate nodes 2 and 5 also must determine whether they can support the requested QoS parameter of the QoS route request RREQQ forwarded from node 3), creates routes to the first communication terminal by using the second and third communication terminals to communicate between the first and third communication terminals via the created route (paragraphs [0033]-[0034], [0036], e.g., At block 118, the intermediate nodes 2, 3 and 5, and/or the destination node 4, may detect at any time whether the node can continue to support the requested QoS parameter of the QoS route request RREQQ),

wherein the second communication terminal has state notification means for detecting a possible disconnection state in terms of a disconnection symptom for communication on the route as an upstream side for the message and notifying the possible disconnection state to the first communication terminal (Fig. 5, reference 120; paragraphs [0037], [0039], [0045], e.g., If the node cannot continue to support the request RREQQ, then the node generates a QoS error notification RERRQ to the source node 1 (block 120); If at any time a link fails along the route or if the QoS requirement cannot be met, a Route Error RERRQ packet is generated and returned to the source node 1 for each traffic flow affected by the failure ), and

the first communication terminal has message origination means for generating the message using a creation condition according to a route other than the route matching the possible disconnection state notified from the second communication terminal and originating the message (paragraphs [0036], [0044]-[0045], [0049], e.g., If the source node receives a RERRQ packet, then it tries the same procedure on the next available backup path. If the source

node has no more backup source routes to the destination, the source node begins another route discovery process for a new QoS path to the destination node).

Regarding claims 28 and 34, Billhartz discloses the communication system and the communication terminal device according to claims 27 and 33, wherein the state notification means detects the possible disconnection state based on at least two different communication criteria (paragraphs [0036], [0052], e.g., The route request processing unit 52 detects whether the node can continue to support the requested QoS parameter of the QoS route request and, if not, generates the QoS error notification RERRQ).

Regarding claims 29 and 35, Billhartz discloses the communication system and the communication terminal device according to claims 27 and 33, wherein the state notification means limits the number of the possible disconnection states notified to the first communication terminal at a specified ratio (paragraphs [0046], [0047], e.g., Each node along the path will have to check to see if they are still maintaining a temporary reservation for the flow. If not they will recheck to see if they can support the flow and make a temporary reservation).

Regarding claims 30 and 38, Billhartz discloses the communication system and the communication terminal device according to claims 27 and 37, wherein the message origination means generates the message using a creating condition according to the route in a better condition than the possible disconnection state (paragraphs [0037], [0051], [0069], e.g., if nodes 7 and 8 are sending large amounts of traffic, but nodes 1-6 are not, it would be better to route traffic through 1-2-3-4-5-6 rather than 1-7-8-6 even though it would result in more hops).

Regarding claims 31 and 39, Billhartz discloses the communication system and the communication terminal device according to claims 27 and 37, wherein the message origination

means measures the number of notifications of the possible disconnection state notified from the second communication terminal on a unit time basis and, when a measurement result exceeds a specified number of times, generates the message using a creation condition according to a route other than the route (paragraphs [0042], [0063], [0065], e.g., If the RREQQ is meant to insure that a path can be found that does not exceed a specified maximum delay, then each node along the path must be able to estimate its contribution to the total path delay and check to see if the total delay along the path so far plus its contribution exceeds the specified maximum delay bound).

Regarding claims 32 and 40, Billhartz discloses the communication system and the communication terminal device according to claims 31 and 39, wherein the message origination means measures the number of notifications of the possible disconnection state notified from the second communication terminal on a unit time basis (paragraphs [0042], [0063], [0065]), and, when a measurement result exceeds a specified number of times, generates the message using a creation condition according to a route in a better state than statistical results of the possible disconnection states corresponding to the number of notifications (paragraphs [0037], [0051], [0069]).

Claim 42 is drawn to a non-transitory computer readable medium on which is recorded a program which, when executed in a communication terminal device, directs the communication terminal device to mediate between a first communication terminal as a transmission origin and a second communication terminal as a transmission destination and, based on a message originated from the first communication terminal to the second communication terminal, create routes to the communication terminal as transmission origin, the program comprising code means generating



steps of claim 36. Therefore, the same rationale applied to claim 36 applies. In addition, Billhartz inherently discloses a computer program product, i.e., given that Gutierrez discloses a process would be implemented by a processor that requires a computer program product, e.g., a RAM, to function.

Claim 43 is drawn to a non-transitory computer readable medium on which is recorded a program which, when executed in a communication terminal device, directs the communication terminal device, based on a message originated from itself to a first communication terminal as a transmission destination, to create a routes to itself by means of a second communication terminal mediating between itself and the first communication terminal and to communicate with the first communication terminal via one of the created routes, the program comprising code means generating steps of claim 41. Therefore, the same rationale applied to claim 41 applies. In addition, Billhartz inherently discloses a computer program product, i.e., given that Billhartz discloses a process, the process would be implemented by a processor that requires a computer program product, e.g., a RAM, to function.

### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Billhartz et al. (US 2003/0202476) teaches a method includes each intermediate node determining whether the node can support the requested QoS parameter and, if so, updating the QoS link metric, forwarding the QoS route request, and temporarily reserving node resource.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY PHAM whose telephone number is (571)270-7115. The examiner can normally be reached on Monday-Friday; 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on 571-272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Timothy Pham/  
Examiner, Art Unit 2617

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Supervisory Patent Examiner,  
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